

MEMORANDUM

August 27, 2025

TO: Reclamation District No. 756

FROM: Nathan Hershey, Mike Kynett

SUBJECT: **August 2025 Engineer's Report**

Described below are the engineering items to be discussed at your August 27, 2025 meeting.

Subventions 2023-24 – The District submitted an application for participation in the Program in the amount of \$631,000. A total of \$15.5 million has been approved by the Central Valley Flood Protection Board for the Program for FY 2023-24. A final claim was submitted in the amount of \$362,485.49. Reimbursement was received in the amount of \$253,452.

Subventions 2024-25 – The District submitted an application for participation in the Program in the amount of \$631,000. A total of \$16 million has been approved by the Central Valley Flood Protection Board for the Program for FY 2024-25.

Subventions 2025-26 – The District submitted an application for participation in the Program in the amount of \$750,000. A total of \$16 million has been approved by the Central Valley Flood Protection Board for the Program for FY 2025-26.

Annual Maintenance – Attached are the current maintenance items we are tracking.

Regional Flood Fight Supply Depot – No updates this month. Our last communication with Sacramento County indicated flood fight materials would be received sometime around April. We are still waiting for delivery.

FEMA – A Recovery Transition Meeting between FEMA, CalOES, and MBK was held on 2/21/25. This meeting is part of the process of handing the claim over to CalOES from FEMA. We have submitted a project completion and certification report to CalOES. The remaining closeout documentation is being compiled and will be submitted soon.

The FEMA reimbursement rate is 100% for eligible costs incurred between 12/27/22 and 2/25/23 and 75% for eligible costs incurred between 2/26/23 and 7/14/23. The total claim amount for 100% FEMA reimbursement is \$11,441.42. The total claim amount for 75% FEMA reimbursement is \$18,738.10. CalOES will reimburse 75% of the 25% not reimbursed by FEMA (\$3,513.39). The approximate total combined reimbursement amount is expected to be \$29,008. The eligible costs in the claim are PG&E bills for electricity for the pump stations.

Special Projects – Construction of the Directed Action project to rehabilitate the north levee (BO-19-1-SP) is complete. We are working with DWR and CDFW on satisfying mitigation requirements. The funding agreement has been extended to December 31, 2027.

The design team is working on the final phase of the BO-17-1-SP project, which includes setting the levee back in the project area (Stations 500-550), creating a habitat bench, and relocating the pump station. Our goal is to submit drawings for permits in 2025 and be ready for construction in 2026. Our recent activities include setting up reoccurring project team meetings, preparing preliminary plans for the levee setback and habitat bench, engaging with our subconsultants, and meeting with the District regarding preferences and features of the new pump station. A meeting will be scheduled soon to discuss the design of the habitat bench and other design related issues.

DWR has provided a funding agreement in the amount of \$900,000 for planning, permitting and design of a multi-benefit project from Stations 415-500 with a State cost share of 90%. The agreement (BO-24-1-SP) has been fully executed, and advance funding has been received. A kick-off meeting was held and the project design is in progress. We have acquired topographic survey data and are working on a design configuration. Geotechnical exploration is complete as well as some environmental surveys.

SB 88 – Phase 5 flow meter installations have been completed on Bouldin Island and Webb Tract. The installation of Phase 5 Wildeye telemetry equipment has been completed on Bouldin Island and Webb Tract. Wildeye also fixed or replaced some broken units on Bouldin and Webb. Wildeye is sending invoices as they complete work on each island. Wildeye has prepared one invoice for the Bouldin and Webb Phase 5 equipment and two invoices, one for each island for the Phase 5 labor, replacement equipment, replacement labor, and labor to move the Wildeye units to the steel poles welded to the siphons.

A separate request for proposals is being prepared for Bacon Island and Holland Tract and is estimated to be released in September. Similar to last time, steel poles will need to be welded on to each siphon for the Wildeye units.

Across all four islands, 62 siphons have measurement equipment. However, 4 of those siphons need new meters and 7 of those siphons have meters with dead batteries. 2 of the 4 broken meters are old saddle meters from the experimentation that took place starting in 2016 (these are the last 2 meters of this type). The other 2 of the 4 broken meters are Seametrics AG 3000 meters that were damaged by debris. However, 1 of the broken AG3000 meters is on the land side of the siphon and the new AG3000 will need to be installed on the water side of the siphon. Gornto provided a quote for replacing the 4 broken meters and MWD has issued a purchase order; MWD is waiting for Gornto to schedule a day to conduct the work. MWD purchased 15 batteries from Technoflo, which MBK has been using to conduct replacements. MBK will continue to monitor all sites via Wildeye's website and will conduct site visits as needed to replace batteries and check on equipment. The flow meter batteries have about a 3 year life, so any flow meter installed in 2022 or earlier has either had or is going to soon need a replacement battery installed.

All Wildeye units are currently working, with the exception of:

- (1) Bouldin Island Siphon 24: The data collected is not being recorded correctly in Wildeye, which we believe is due to a configuration issue. Wildeye worked on this meter during Phase 5 installations, but MBK needs to confirm that it is working.
- (2) Bacon Island Siphon 10: Wildeye was reinstalled incorrectly after levee work. Will be moved to steel pole during Phase 5 installations.
- (3) Bacon Island Siphon 31: Wildeye solar panel is missing (may have been stolen). To be fixed during Phase 5 installs.

All flow meters are currently working, with the exception of:

- (1) Bouldin Island Siphon 2: This is a Seametrics AG 3000 meter that was damaged by debris. It can be replaced with the complimentary Seametrics AG 3000 12" meter and 14" conversion kit provided by TechnoFlo. Gornto to fix.
- (2) Bouldin Island Siphon 22: While at the site, the meter said pipe empty, but the siphon was running. Wildeye showed data on and off throughout the day. MBK to conduct further review of data.
- (3) Bouldin Island Siphon 26: This is a broken saddle meter that was installed during the experiment phase, which started in 2016. This meter can be replaced with one of the surplus Seametrics AG 3000 12" meters purchased by MWD during the Phase 5 equipment purchase. The extra 14" conversion kit no longer needed for Bouldin Island Siphon 9, can be used. Gornto to fix.
- (4) Webb Tract Siphon 6: This is a Seametrics AG 3000 meter that was damaged by debris. It can be replaced with one of the Seametrics AG 3000 surplus 12" meters purchased by MWD during the Phase 5 equipment purchase. Gornto to fix.
- (5) Bacon Island Siphon 14: Grounding cable disconnected and dead battery. MBK to fix cable and replace battery. Issues getting lid off. Have acquired new wrenches to try.
- (6) Bacon Island Siphon 24: Flow rate on meter seems high compared to Wildeye. MBK to conduct further review of data.
- (7) Bacon Island Siphon 25: This is a broken saddle meter that was installed during the experiment phase, which started in 2016. This meter can be replaced with one of the Seametrics AG 3000 surplus 12" meters purchased by MWD during the Phase 5 equipment purchase. Gornto to fix.
- (8) Bacon Island Siphon 28: Old equipment at this site. Have Gornto remove when installing new meter.
- (9) Bacon Island Siphon 31: Wildeye solar panel is missing (may have been stolen). To be fixed during phase 5 installs.
- (10) Holland Tract Siphon 1: Screen said bat low immediately after battery replacement. MBK to check on battery next time we are in the field.

MBK has provided MWD staff with a draft summary technical report on the 2024 OpenET and measured diversion comparison for review.

MBK prepared Water Year 2024 annual reports, and MWD staff submitted the reports prior to the February 1, 2025 deadline. Subsequent to those submissions, MWD staff prepared and submitted a second set of annual reports using the Delta ACP reporting platform. The Delta Watermaster requested the spreadsheets used to prepare the 2023 and 2024 annual reports, which MBK and MWD subsequently sent.

MBK met with MWD and Tetra Tech on March 6, 2025, to discuss the Bouldin Island Water Balance. Tetra Tech requested recommendation by MBK regarding the metering of the discharge pumps. MBK worked with TechnoFlo to obtain a quote for a strap on flow meter, which Technoflo recommended for the pump stations on Bouldin. The quote is with MWD. Here are some of the key details of the recommended meter:

- Works for any size pipe
- Has a +/-2% accuracy
- Has a built-in data logger
- Much more cost effective than the mag meters
- Interference between meters should not be an issue
- Easy to install however, external power is required so an electrician will be needed

Earlier this year MWD mentioned that it would be good to purchase 5 backup meters in case of meter failures. TechnoFlo provided a quote for the meters listed below. MBK will follow up with MWD to see if there is a plan to complete this purchase.

- 14 inch meter (Seametrics) - Quantity 2
- 16 inch meter (McCrometer) - Quantity 1
- 18 inch meter (McCrometer) - Quantity 2

RD 756 – Bouldin Island

Issue Tracking Summary

August 22, 2025

Issue ID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
041	Medium	March 28, 2017 5:00 PM	RalphHeringer	Station 544-549	Crack	Cracking in LS Slope; seepage and cattails at toe	Monitor	Monitor and discuss repair; 10/23/17 Levee crown trenched; no encroachments located, Area to be graded and prepared for flood season; will proceed under Special Projects upon receipt of PFA. 12/4/17 - grading complete
41.1		April 24, 2020 12:00 AM	Nate Hershey					Reviewed the site area. Area appears to be moving again - not as dramatic as in 2017, but it appears to be along the same fault lines. Seepage observed exiting the surface. Recommend performing an updated survey and developing an action plan.
41.2		March 10, 2023 1:00 AM	Andrew Petrini					Visual observation suggests recent movement may have occurred. AECOM reports no significant movement detected by instrumentation at this time.
053	Medium	August 11, 2017 12:00 AM	Nate Hershey	Station 324	Seepage	Seepage at toe of 3 to 1 slope	Monitor	Monitor
054	Medium	August 11, 2017 12:00 AM	Nate Hershey	Station 336	Seepage		Monitor	Monitor; The hole is shallow at about 1-2 inches deep.
074	Low	January 5, 2019 5:54 PM	Russ Ryan	Land side within 150 foot Levee footprint. See attached photos. Low wet areas.	Sinkhole, Other	Bouldin Island - West stretch length adjacent to Mokelumne River. See attached photos for exact location.	Investigate	See notes above.
088	Low	June 7, 2019 1:55 PM	Dave Forkel	Sta 382+00	Seepage	Seepage on side of levee.	Investigate	

096	Medium	April 22, 2020 12:00 AM	Russ Ryan	Between 630 and 640	Seepage	Appears to be seepage	Investigate	
107	Medium	December 17, 2020 2:05 PM	Russ Ryan	Station 630	Seepage	Just inside levee footprint on land side of toe drain there water ponding. Was there prior to any rain this season during dry period.	Monitor	See photos taken on site.
116	Medium	February 21, 2022 3:23 PM	Russ Ryan	West levee north of camp 5 at pilot project instrumentation area.	Seepage	Noticeable standing water at toe of levee at the same 2017 slippage event.	Investigate	Need Geotech investigation and assessments.
117	Low	February 23, 2022 12:10 PM	Russ Ryan	Location is landside off west levee (Bouldin Island) and south of Hwy 12	Seepage	Landside water ponding presenting at toe of levee.	Investigate	Roughly an estimated 30 feet by 10 feet. Dimensions need to be verified in field investigation.
121	Medium	October 14, 2022 12:00 AM	Nate Hershey	Station 33	Seepage	Seepage observed periodically on toe of levee. Seems to come and go, sometimes difficult to tell if it is seepage or ponding water. Observations suggest it is likely seepage that periodically appears during times of high water.	Investigate	
126	Medium	February 17, 2023 12:12 PM	Dave Forkel	Camp 29 Pump Station	Erosion	Washout behind sump sheet piling	Repair	
144	Medium	October 18, 2023 1:27 PM	Jack Cronin	East levee. See point, near Caution marker in water.	Sloughing	Sloughing, appears old. Likely not from earthquake.	Monitor	
145	Medium	October 18, 2023 1:31 PM	Jack Cronin	See point.	Sloughing	Minor sloughing. Potentially from seismic event	Investigate	